NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
1996 AGENCY REPORT
for
Report of the Technical Subcommittee of the Canada-United States Groundfish Committee
prepared by Jane DiCosimo
May 1997

The North Pacific Council continued management of groundfish, halibut, crab, and scallop resources for offshore Alaska waters. It continued development of comprehensive programs to reduce bycatch and waste for both regulatory and economic discards through initiatives such as an Improved Retention/Improved Utilization program. Other programs, such as Vessel Bycatch Quotas will be developed in 1997. License Limitation and Community Development Quotas fro groundfish and crab should be implemented in 1998.

A. GROUNDFISH

Improved Retention and Utilization Program

The Council addressed waste and discard reduction provisions included in the reauthorized Magnuson Act by approving a retention and utilization (IR/IU) program for Bering Sea and Aleutian Island groundfish fisheries. Following nearly two years of analyses, Council discussions, and industry participation, the Council voted unanimously to require 100% retention of pollock and Pacific cod in all BSAI fisheries. Rock sole and yellowfin sole retention requirements will be delayed for a period of five years - the delay for these two species, which are not yet fully utilized species, would allow development of markets and gear technological responses by the vessels engaged in these fisheries. The Council addressed the utilization side of the program by not mandating specific product forms, but by allowing individual operations the flexibility to process pollock and Pacific cod into whatever product forms they wish, subject to a minimum required product recovery rate of 15%.

The Council's target date for implementation of this program is January 1, 1998. A similar program for Gulf of Alaska fisheries will be developed in 1997 and implemented on a parallel track. State regulations to extend these requirements to onshore processing plants will also be developed on a parallel schedule. The Council approved a relatively simple, straightforward program for the BSAI fisheries, with the expectation for future fine-tuning, including the continued involvement of the industry IR/IU Committee. The Council's action included specific provisions for monitoring and assessing the program's goals and objectives.

Also part of the Council's overall Comprehensive Rationalization initiative, development of Vessel Bycatch Accounts (VBAs), also known as Individual Bycatch Quotas (IBQs), was delayed until 1997 because of a moratorium on development of any IFQ-type program in 1996 pending the October 1996 reauthorization of the Magnuson-Stevens Act.

Bering Sea and Aleutian Islands Groundfish Specifications

The Council adopted final groundfish specifications for the 1997 Bering Sea and Aleutian Islands groundfish fisheries, including Acceptable Biological Catch (ABC), Total Allowable Catch (TAC), and Prohibited Species Catch (PSC) limits and apportionments. Groundfish abundance in the Bering Sea and Aleutian Islands area remains relatively stable for most species. Abundance of Pacific ocean perch in the Aleutian Islands has increased, whereas pollock and Atka mackerel have declined.

Projected 1997 biomass of pollock in the Eastern Bering Sea stock was estimated at 6.1 million mt, and is effectively at the level that produces MSY. The stock was estimated to have been 6.2 million mt in 1996. The current fishery is dependent on the strong 1989 year-class (which is expected to become insignificant by 1998), and to a lesser extent, the 1992 year-class. As a result, but not unexpectedly, the future fishery will be increasingly dependent on incoming year-classes. Recruitment has been difficult to predict, however.

A special report on hydroacoustic and bottom trawl surveys conducted in the western Bering Sea was provided by Dr. Mikhail Stepanenko, TINRO Centre, Russia. Russian data indicate the presence of a large 1992 year-class and a strong 1995 year-class, which appears similar in magnitude to the exceptional 1989 year-class. The 1994 year class appears to be below average according to Russian data.

The Council remains concerned about the status of the Eastern Bering Sea pollock stock. If pollock biomass continues to decline, allowable catches may be much reduced. The harvest policy adopted under Amendment 44 (Overfishing Definition) will increasingly adjust fishing mortality downward in the spirit of conservative management. The combined hydroacoustic trawl survey that will take place in 1997 will strengthen next year's stock assessment and provide critical information in determining the status of this population.

For 1997, the Council recommended a 1,130,000 mt TAC for Eastern Bering Sea pollock, a decrease of 5% (60,000 mt) from 1996. Of the TAC, 45% is allocated to the roe season ("A") and 55% to the non-roe season ("B"). As with last year, the "A" season will begin on January 20 for the inshore fleet and January 26 for the offshore fleet. The "B" season will begin on September 1 for both onshore and offshore sectors, with a 7-day stand down provision for vessels fishing other groundfish seven days prior to September 1. The pollock TAC for the Aleutian Islands area was set at 28,000 mt, and 1,000 mt for the Bogoslof district (Area 518). The Council continues to recommend no directed fishing for pollock in the Bogoslof district. Based on a 7.5% allocation, the 1997 Community Development Quotas will be 84,750 mt for the Eastern Bering Sea and 2,100 mt for the Aleutian Islands areas.

The Council recommended a 270,000 mt TAC for Pacific cod, the same as last year. Under the allocations of Amendment 46, 2% of the TAC will be reserved for jig gear, 51% for fixed gear (longline and pot gear), and 47% for trawl gear. The trawl apportionment will be split between catcher vessels and catcher-processors 50/50. For the fixed gear seasonal apportionment of Pacific cod, the Council recommends that 85,000 mt be released the first trimester (January 1 - April 30), 26,500 mt for the second trimester (May 1 - August 31), and 5,545 mt for the third trimester. Reserves of 20,655 mt will be apportioned with 77% to the first and third trimester, and 23% to the second trimester.

Apportionments of prohibited species catch limits for 1997 were made for trawl fisheries and non-trawl fisheries. The total PSC limit for herring (1,579 mt) is 1% of the estimated herring biomass in the eastern Bering Sea. Total PSC limits for other species are specified in regulations, but are seasonally apportioned among fisheries during the annual specification process. Bycatch limits for red king crab and Tanner crab were reduced this year under Amendments 37 and 41. PSC limits for red king crab were reduced to 100,000 crab, and PSC limits for Tanner crab were reduced to 750,000 crab in Zone 1 and 2,100,000 crab in Zone 2. The Council again recommended that no PSC be apportioned to directed trawl fisheries for turbot, sablefish, or arrowtooth flounder. This recommendation essentially prohibits directed fishing for these species with trawl gear. For the non-trawl halibut PSC apportionment, the Council recommended allocating more halibut to the Pacific cod fishery, particularly in the first trimester. The Council again recommended that pot gear, jig gear, and sablefish hook-and-line fisheries be exempt from the non-trawl PSC program for 1997.

Bering Sea Ecosystem

The Council formed an Ecosystem Committee with Dave Fluharty (Chairman), Linda Behnken, Kevin O'Leary, Chris Blackburn, Kristen Stahl-Johnson as committee members. The committee serves as an educational forum and interacts with the groundfish plan teams, as well as provides advice to the Council. Council and committee member Dave Fluharty has been nominated for the national ecosystems panel for the National Academy of Sciences.

The Council received a report from the National Research Council's Committee on the Bering Sea Ecosystem, which was tasked by the State Department to study the population dynamics and changes in marine mammals, seabirds, and commercially important species in the ecosystem and the probable causes of the changes. It also set out to identify gaps in knowledge and identify alternative management strategies. It concluded that changes in the Bering Sea ecosystem over the past 50 years are due to a combination of environmental change and human impacts. Its "cascade hypothesis" is based on changes in the physical environment acting in concert with human exploitation of long lived predators (such as whales) to create an environment in which pollock thrive. Hence, some changes that have occurred are likely irreversible in human time frames. It recommend that the Council utilize active adaptive management as a research tool, and that management adopt an ecosystem perspective. In consideration of declines in marine mammal and bird populations, the Committee suggested that fishing effort for pollock be broadly distributed over space and time. A copy of the full report, entitled "The Bering Sea Ecosystem," is available from the National Academy Press.

Gulf of Alaska Final Groundfish Specifications

The Council approved final 1997 Gulf of Alaska groundfish quota specifications, including Acceptable Biological Catches (ABCs), Total Allowable Catches (TACs), and Prohibited Species Catch (PSC) limits. The specifications are based on the current stock assessments contained in the final 1997 Gulf of Alaska Groundfish Stock Assessment and Fishery Evaluation (SAFE), as well as recommendations by the Gulf of Alaska Groundfish Plan Team, Advisory Panel, and Scientific and Statistical Committee (SSC).

The results of the 1996 NMFS trawl survey were incorporated into all stock assessments, except for sablefish and demersal shelf rockfish (DSR) which are assessed from longline surveys. The 1996 assessments indicated significant increases in ABCs since last year for walleye pollock, Pacific cod, and Pacific ocean perch (POP). The 1996 assessment indicated slight to moderate declines for all species of flatfish and other rockfish species.

The Council increased the ABC and TAC for walleye pollock from 54,810 mt to 79,980 mt for 1997 though the distribution between GOA subareas is changed from 1996. Length frequency data from the 1990 through 1996 hydroacoustic surveys and the 1996 bottom trawl survey showed the progression of the strong 1988 year class through the population. Age composition data from the 1993 bottom trawl survey and the 1995 fishery also revealed strong 1988 and 1989 year classes. The 1989 year class in the Bering Sea has also been shown to be strong. The 1995 and 1996 hydroacoustic surveys also revealed a strong 1994 GOA year class.

The 1996 survey suggesting an increase in biomass over the 1993 estimate, led to an increase in the Pacific cod ABC from 65,000 mt to 81,500 mt. Preliminary indications are that the 1995 year class may be above average. The Council also reviewed the October 1996 Alaska Board of Fisheries (BOF) action that initiated a state water fishery for Pacific cod. The Council recommended that Pacific cod harvests from the state managed fisheries in coastal and internal Prince William Sound waters should be counted against the federal TACs since cod is a single stock in the GOA. Accordingly, they reduced the TAC by 15% of the ABC for the Western and Central areas and 25%, for the Eastern area. The total Gulf TAC was set at 69,115 mt for

the federal fishery, still a 6% increase from the 1996 TAC. The Council expressed concern over the lack of coordinated management between the state and federal agencies on Pacific cod.

The 1997 sablefish ABC and TAC declined to 14,625 mt from 17,080 mt, reflecting the continued decline in the stock. Revisions to the stock assessment model resulted in an increase in the final ABC from the preliminary ABC of 11,620 mt announced in September. Area apportionments are 1,860 mt for the Western area, 6,410 mt for the Central area, 2,410 mt for West Yakutat, and 3,840 mt for East Yakutat/Southeast Outside. The Council requested that staff analyze the effects of rolling closures for trawl and longline vessels to avoid sablefish longline survey areas during sampling. Industry has raised repeated concerns that the decline in sablefish abundance may be related to impacts of fishing on survey stations prior to sampling, despite repeated requests for voluntary avoidance of survey areas.

Arrowtooth flounder, shallow water flatfish, and flathead sole ABCs were rolled over from 1996, except for the flathead Eastern area TAC which dropped by 700 mt. The rex sole ABC dropped by 540 mt, while the deep water flatfish TAC dropped from 11,080 mt to 7,170 mt.

The POP stock appears to be rebuilt according to the Council's rebuilding plan, but the Council set a TAC equal to 80% of the Western and Central Gulf ABC and rolled over the 1996 Eastern Gulf TAC for a total TAC of 9,190 mt. The Council's conservative approach was to ensure that the stock is fully recovered. Remaining rockfish ABCs did not vary greatly from 1996. Other slope rockfish was set for bycatch only.

For 1997, black and blue rockfishes were separated into a nearshore component and dusky, widow, and yellowtail rockfishes were separated into an offshore component of pelagic shelf rockfish for the Central Gulf only. The PSR assemblage remained intact for the Western and Eastern areas, awaiting better information upon which to calculate nearshore ABCs for those areas. Final action on a plan amendment to revise management authority of black and blue rockfishes is scheduled for June 1997.

Demersal shelf rockfish were unassessed in 1996, and ABC and TAC were rolled over. In addition, Atka mackerel biomass estimates from the survey were determined to be unreliable, so ABC and TAC were set equal to bycatch needs.

The Prohibited Species Catch (PSC) limits for halibut in the GOA are set by gear type and may be apportioned seasonally over the fishing year. For 1997, the Council recommended continuing the 1996 PSC apportionments for the GOA groundfish fisheries and are unchanged from 1996. Pot gear and the sablefish fixed gear IFQ fishery continue to be exempt from the halibut PSC limits. The trawl gear PSC cap is further apportioned between "shallow" and "deep" water species complexes.

Species in the shallow water complex are pollock, Pacific cod, shallow water flatfish, Atka mackerel, and other species, while the deep water complex includes deep water flatfish, rockfish, flathead sole, sablefish and arrowtooth flounder. Halibut discard mortalities recommended by International Pacific Halibut Commission staff were also approved. The Council modified the recommendation for the BSAI Pacific cod longline fishery to 11.5% for the first trimester of 1997. The rate for the remainder of the year will revised in 1997 based on observer rates in 1996.

Groundfish Amendment Update

Allocation of Pacific Cod in the Bering Sea and Aleutian Islands. The Council approved an agreement negotiated by affected industry groups allocating Pacific cod in the Bering Sea and Aleutian Islands. Under the agreement, 51% of the Pacific cod TAC will be allocated to fixed gear, 47% to trawl gear and 2% to jig

gear. The allocation should be in effect beginning in 1997, with a review by the Council scheduled in four years.

Electronic Reporting. A regulatory amendment to require groundfish processors to utilize electronic recordkeeping and reporting was approved for public review and will be available from the Council office on July 15. The amendment would require groundfish processors in the BSAI and GOA that are subject to observer coverage to use NMFS-supplied software to electronically record harvest and processing activities on computer equipment. Conventional logbooks and associated NMFS reports would be replaced by electronic versions. At-sea processors would be required to transmit in-season NMFS reports using Inmarsat satellite equipment and shore-based processors would be required to use modems and phone systems. All processors using the electronic reporting system would be required to have a computer-operated printer to make paper copies of electronic logbook pages and transmitted reports at the processing site.

The NMFS electronic reporting system would be implemented in two stages. Phase 1 would consist of electronic versions of the daily production, weekly production, and check-in/check-out reports and would be implemented in early 1997. Phase 2 would consist of electronic logbooks, vessel activity reports, and product transfer reports and would be implemented in 1998. An earlier phase, approved by the Council in June 1995, to facilitate the reporting of observer data will also be implemented in early 1997.

GOA Amendment 38. The Pacific ocean perch rebuilding plan was amended to allow the TAC to be set less than or equal to the rebuilding schedule built into the plan.

GOA Amendment 45. An amendment to annually apportion seasonal allocations of pollock TAC for combined GOA Western and Central regulatory areas was approved. The final rule combines the third and fourth quarterly allowances of pollock TAC in the W/C area into a single seasonal allowance that will become available on September 1. While the Council recommended a third trimester opening date of September 1 for the Central area and October 1 for the Western area, NMFS received extensive public comment from Western area-based fishermen and processors, that if their opening is delayed to October, they will be preempted by larger and more numerous Bering Sea-based vessels, and they also expressed safety concerns with an October 1 opening in the Western area.

BSAI Pollock B Season Delay. The BSAI pollock B season was delayed until September 1. This delay will apply to both the onshore and offshore sectors, and includes a "stand-down" provision to minimize impacts of the delay on other groundfish fisheries, particularly the yellowfin sole fisheries. Specifically, any vessel which fishes for any BSAI or GOA groundfish, other than pollock in the CDQ fisheries, in the seven-day period (168 hours) prior to September 1 will be prohibited from fishing in the pollock directed fishery for the first seven days of the B season. The regulation also will include a November 1 cutoff to the pollock fishery, regardless of whether the TAC has been taken. Late fall and early winter months are critical survival periods for juvenile sea lions. Most of the time, the fishery is expected to reach its pollock TAC by early October. This regulatory amendment would apply to the 1996 fisheries and beyond.

The Council was scheduled to take final action in April 1996 on a modified pay-as-you-go Observer Program to replace the fee-based Research Plan which was repealed by the Council in December 1995. The new program would utilize a third party "Prime" contractor to act as an interface between observer contracting companies and vessels or plants required to carry observers. Because the potential costs of this modified program could not be accurately quantified at this time, the Council withheld final action on the modified program until those costs can be further defined. Among the unknown variables in the overall cost equation is the issue of observer compensation, which has the potential to significantly increase the costs of observer coverage. This will be particularly true if provisions of the Services Contract Act (SCA) apply, which could

be the case when the federal government enters into a contract with a third party, "Prime" contractor. The Council will take final action in 1997.

Halibut Grid-Sorting. The Council did not approve a regulatory amendment to require the use of a grid to sort fish in the non-pelagic trawl groundfish fisheries. The International Pacific Halibut Commission withdrew its support of the industry proposal because the magnitude of projected savings in halibut discard mortality was not sufficient to overcome complications in estimating bycatch, and because of conflicts with the Vessel Incentive Program (VIP). The Council expressed strong interest in resolving the data quality issues that prevented implementation of this effort to decrease halibut bycatch mortality. The Council also clarified that grid-sorting of halibut is currently legal, and may be done voluntarily, both on unobserved vessels and during unobserved tows on observed vessels. NMFS is scheduled to provide a report on the VIP and data quality issues to the Council in June.

Forage Fish Prohibition. The Council reviewed an analysis that examined potential impacts of prohibiting a directed fishery on forage fish. Forage fish identified in this analysis include Osmeridae (capelin, smelt), Myctophidae (lanternfish), Bathylagidae (deep-sea smelts), Amodytes (sandlance), Gonostomatidae (bristlemouths), Stichaedae (pricklebacks), and Pholidae (gunnels), Pacific sandfish, and euphausiids. Forage fish are an important ecosystem component, and are prey for marine mammals, seabirds, and commercially important fish species. Recent changes in predator abundance have raised concerns that forage fish may require additional protection. Under current regulations, catch of forage fish could be retained under either the "other species" category TAC or as a "non-specified species." Regulations would not affect state managed fisheries for capelin within state waters. The Council approved a revised amendment package in April 1997.

Seabird Protection. The Council responded to an industry request for regulations requiring various avoidance measures by the longline fleet to avoid the capture of seabirds. The Council approved gear modifications, seabird avoidance devices, or changes in fishing methods designed to reduce the incidental mortality of seabirds in the directed groundfish and halibut fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands. Short-tailed albatross are on the endangered species list, and their incidental take in groundfish fisheries is strictly limited. The allowable take is set at two albatrosses. NMFS confirmed that two short-tailed albatross were taken in the 1995 IFQ sablefish fishery. One was taken in 1996. A regulatory amendment to require similar action for the hook-and-line halibut fishery was approved in April 1997.

Electronic Reporting: The Council approved a regulatory amendment to require groundfish processors in the Bering Sea, Aleutian Islands, and Gulf of Alaska to utilize an electronic record keeping and reporting system for NMFS-required documents. The proposed changes would replace conventional logbooks and associated NMFS reports with electronic versions. At-sea processors would be required to transmit in-season NMFS reports using Inmarsat satellite equipment and shore-based processors would be required to use modems and phone systems. The electronic reporting system would be implemented in two stages. Phase 1 would consist of electronic versions of the daily production, weekly production, and check-in/check-out reports and would be distributed to the groundfish processing industry for voluntary use in early 1997. Legal implementation of Phase 1 would take place in 1998. Phase 2 would consist of electronic logbooks, vessel activity reports, and product transfer reports. These will be developed in 1997 and 1998 with full legal implementation in 1999.

B. HALIBUT AND SABLEFISH

IFQ Update

In response to specific requests from Alaska Governor Knowles, Council members and the public and pending Congressional review of the nation's IFQ programs, an inter-agency, inter-governmental team of professionals was assembled in the summer of 1995 to research the performance of the Pacific halibut and sablefish Individual Fishing Quota (IFQ) programs. The ten reports presented by the IFQ Research Planning Team to the Council in September 1996 examined distributional issues, resource conservation, impacts on QS holders and registered buyers, program implementation, enforcement and costs, and vessel safety for the first year (1995) of the halibut and sablefish IFQ programs.

Report Element	Topics (Extract)	Agency
Distributional Issues (2 Major Reports)	• Expected v. actual distribution of QS • Initial distribution • Changes from transfers • Changes in landings	State/CFEC
"Gap" Analysis (1 Major Report)	• 1991 - 1994 participants	
Conservation Issues (1 Major Report)	• Gear loss • By-catch/discards • Under reporting and "high-grading" • Gear conflicts	NMFS/AFSC and Halibut Commission
Impacts on QS Holders and Registered Buyers (3 Major Survey Reports)	• Changes in fishing practices/crew • Ex-vessel prices • Processing impacts • Wholesale prices	UAA/Anchorage/ISER
Implementation & Costs (Memorandum Report)	• Implementation of IFQ program, including agency changes, start-up activities, and costs	NMFS/RAM Division
Enforcement & Costs (Memorandum Report)	• Implementation of IFQ Enforcement regime, including staffing, 1st year activities, and associated costs	NMFS/Alaska Enforcement Division
Safety (Memorandum Report)	• Coast Guard search & rescue (SAR) activities; earlier years v. 1995	US Coast Guard

Ice and slime deductions. A regulatory amendment to create standard deductions for ice and slime for halibut and sablefish to improve accurate accounting of harvests was approved in late 1996. The Council's recommended standard deduction for halibut and sablefish is based on industry standards of 0% (washed) or 2% (for ice and slime). Standard deductions will likely be in effect shortly after the start of the 1997 IFQ season.

Area 4 use caps. The Council approved a regulatory amendment to increase the halibut quota share use caps in the Bering Sea/Aleutian Islands (Area 4)to 1½ percent from the status quo limit of ½ percent of the total amount of halibut QS for regulatory areas 4A, 4B, 4C, 4D, and 4E, combined. Industry had reported that the ½ percent cap was insufficient to justify the expense of traveling to remote areas in the western Aleutian Islands and Bering Sea to harvest halibut and does not allow initial issuees to harvest halibut in

a manner consistent with their historic participation in the fishery. The ½ percent cap amounted to 26,500 lb based on combined Area 4 1994 TACs and 23,610 lb based on 1995 and 1996 TACs. Most QS, however, is distributed among multiple areas, further exacerbating the problem of low use caps.

Buydown. The Council approved Amendments 42/42 to allow QS assigned to larger vessel categories to be used on vessels of the same size class or smaller. This amendment would allow the use of larger vessel category (Category B and C) quota share (QS) on smaller category vessels (Category C and D respectively), except that in halibut area 2C and sablefish southeast area, buydown of B category QS would be allowed only for blocks that are less than 5,000 lbs (based on '96 quotas). This program was implemented mid-season.

Sweep-ups. The Council approved Amendments 43/43 to increase the sweep-up levels of halibut and sablefish quota share blocks. The Council approved new sweep-up levels of less than 3,000 lbs for halibut and less than 5,000 lbs for sablefish. The new sweep-up levels will be based on 1996 TACs and will be set in the quota share (QS) units equivalent to the new sweep-up poundage levels for each area. This moderate increase in the consolidation of very small, blocked QS was approved to provide economically "fishable" amounts for small QS holders, crew members, and new entrants to the fishery, without overly increasing consolidation or creating large blocks. If approved by the Secretary of Commerce, this program will be implemented for the 1997 IFQ fishing season.

Amendment 33/37. A plan amendment to prohibit the use of halibut catcher vessel QS on freezer/longliners and allow the freezing on non-IFQ species while harvesting sablefish catcher vessel QS on freezer/longliners was approved by the Secretary of Commerce in June 1996.

Omnibus II. This regulatory amendment included eight regulatory changes that became effective early in the 1996 IFQ season.

Extended sablefish season. A regulatory amendment to extend the sablefish IFQ season in the Aleutian Islands was rejected by the Regional Director due to unreconcilable administrative and enforcement issues related to extending the IFQ season.

Halibut Charter Boat Management

The Council initiated an analysis of management alternatives for the halibut sport/charter fishery in 1994, establishing several alternatives to be studied, including a moratorium on further entry into the charter boat fishery and a potential allocation between sport and commercial halibut fisheries off Alaska. With funding and staff finally becoming available to proceed with the study, the Council narrowed the scope of study by eliminating consideration of the unguided sport fishery, and by eliminating development of an IFQ program for the charter boat industry. The primary alternatives being considered by the Council remain: (1) status quo - no action; (2) implementation of a system of recordkeeping and reporting for the charter fleet; (3) a moratorium on further entry into the charter fishery; (4) a cap on the amount of halibut allocated to the guided sport fishery, either state-wide or by more specific management areas (an explicit percentage allocation of the quota between guided sport and commercial halibut fisheries, with the option for IFQ purchase by the charter vessels in the event of a fishery closure); and, (5) any combination of the alternatives listed above. The Council is scheduled for final action in September 1997.

C. CRAB

BSAI Crab Bycatch Management

The Council remains concerned about the depressed status of Bristol Bay red king crab. At its June meeting, the Council took final action on several measures to protect this stock from possible impacts due to groundfish fisheries. First, the Council rescinded its previous action on Amendment 37, and recommended a year-round closure to non-pelagic trawling in the Red King Crab Savings Area (162° to 164° W, 56° to 57° N to increase protection of adult red king crab and their habitat. To allow access to productive rock sole fishing areas, the area bounded by 56° to 56°10'N latitude would remain open during the years in which a guideline harvest level for Bristol Bay red king crab is established. A separate bycatch limit for this area would be established at no more than 35% of the red king crab prohibited species catch (PSC) limits apportioned to the rock sole fishery.

To protect juvenile red king crab and critical rearing habitat, the Council recommended that all trawling be prohibited on a year-round basis in the nearshore waters of Bristol Bay. Specifically, the area east of 162° W (i.e., all of Bristol Bay) would be closed to trawling, with the exception of an area bounded by 159° to 160° W and 58° to 58°43'N that would remain open to trawling during the period April 1 to June 15 each year. Such a closure would protect known areas of juvenile red king crab habitat while at the same time allowing trawling in an area that can have high catches of flatfish and low bycatch of other species. The area north of 58°43'N was closed to reduce bycatch of herring, and also of halibut, which move into the nearshore area in June. The Council also recommended that NMFS rescind regulations allowing trawling for Pacific cod in the area off Port Moller, as these regulations are out of date given the current status of red king crab and scientific knowledge of critical habitat.

The third management measure adopted by the Council was a reduction of PSC limits for red king crab taken in trawl fisheries. Specifically, the Council recommended adoption of a stairstep-based PSC limit for red king crab in Zone 1. PSC limits would be based on abundance of Bristol Bay red king crab as follows:

Abundance	Zone 1 PSC limit
Below Threshold = 8.4 million mature crabs + Effective Spawning Biomass (ESB) <14.5 million lb.	35,000 crabs
Above Threshold + ESB < 55 million lb	100,000 crabs
ESB > 55 million lb	200,000 crabs

Bristol Bay Red King Crab Closure Area

The Council requested that National Marine Fisheries Service take emergency action to extend the Bristol Bay Red King Crab Savings Area trawl closure to June 15. Last September, the Council adopted a January 1 to March 31 closure to trawling in this area as part of Amendment 37. However, recent information suggested that the red king crab stock remains in poor condition and the Council was concerned about potential impacts of trawling on red king crab during the molting and mating period. For 1996, NMFS had planned to close the area (162° to 164° W longitude, 56° to 57° N latitude) to all trawling through March 31 by inseason management authority. Because Regulatory Area 516 (162° to 163° W longitude) closes from March 15 to June 15 under existing regulations, the emergency rule will affect only the western portion (163° to 164° W longitude, 56° to 57° N latitude) of the Red King Crab Savings Area. Longer term, proposed changes to the Bristol Bay Red King Crab Savings area include a 3-month, 6-month, or year-round closure to non-pelagic trawling. Other management measures being considered include: modifying existing crab bycatch limits for trawl fisheries, adopting snow crab (C. opilio) bycatch limits for Bering Sea trawl fisheries, and establishing a trawl closure area in nearshore waters of Bristol Bay. The Council has

also requested that NMFS provide crab bycatch data from Gulf of Alaska fisheries to assess whether bycatch management measures for that area may be necessary.

Tanner Crab Bycatch Limits

The Council approved the agreement negotiated by affected industry groups regarding PSC limits for C. bairdi Tanner crab taken in BSAI trawl fisheries. Under the agreement, PSC limits for bairdi in Zones 1 and 2 will be based on total abundance of bairdi crab as indicated by the NMFS trawl survey. Based on 1996 abundance (185 million crabs), the PSC limit for C. bairdi in 1997 will be 750,000 crabs in Zone 1 and 2,100,000 crab in Zone 2. Crab bycatch accrued from January 1 until publication of the final rule (expected by April 1997) will be applied to revised bycatch limits established for specified fisheries.

Snow Crab Bycatch Limits

The Council approved the agreement negotiated by affected industry groups regarding PSC limits for C. opilio snow crab taken in BSAI trawl fisheries. Under Amendment 40, PSC limits for snow crab will be based on total abundance of opilio crab as indicated by the NMFS standard trawl survey. For 1998 and thereafter, the snow crab PSC cap will be set at 0.1133% of the Bering Sea snow crab abundance index, with a minimum PSC of 4.5 million snow crab and a maximum of 13 million snow crab. Snow crab taken within the "Snow Crab Bycatch Limitation Zone" (SCBLZ) would accrue towards the PSC limits established for individual trawl fisheries. Upon attainment of a snow crab PSC limit apportioned to a particular trawl target fishery, that fishery would be prohibited from fishing within the SCBLZ.

For 1997 only, all snow crab bycatch in areas 513, 514, 521, 523, and 524 will accrue to the PSC limit, and the PSC limit will be increased by 10%. Based on 1996 survey abundance (5,425 million crabs), the 1997 snow crab PSC limit will be 6,760,000 crabs. Snow crab bycatch accrued from January 1 until publication of the final rule (expected by July 1997) will apply to all fisheries that take snow crab in 1997.